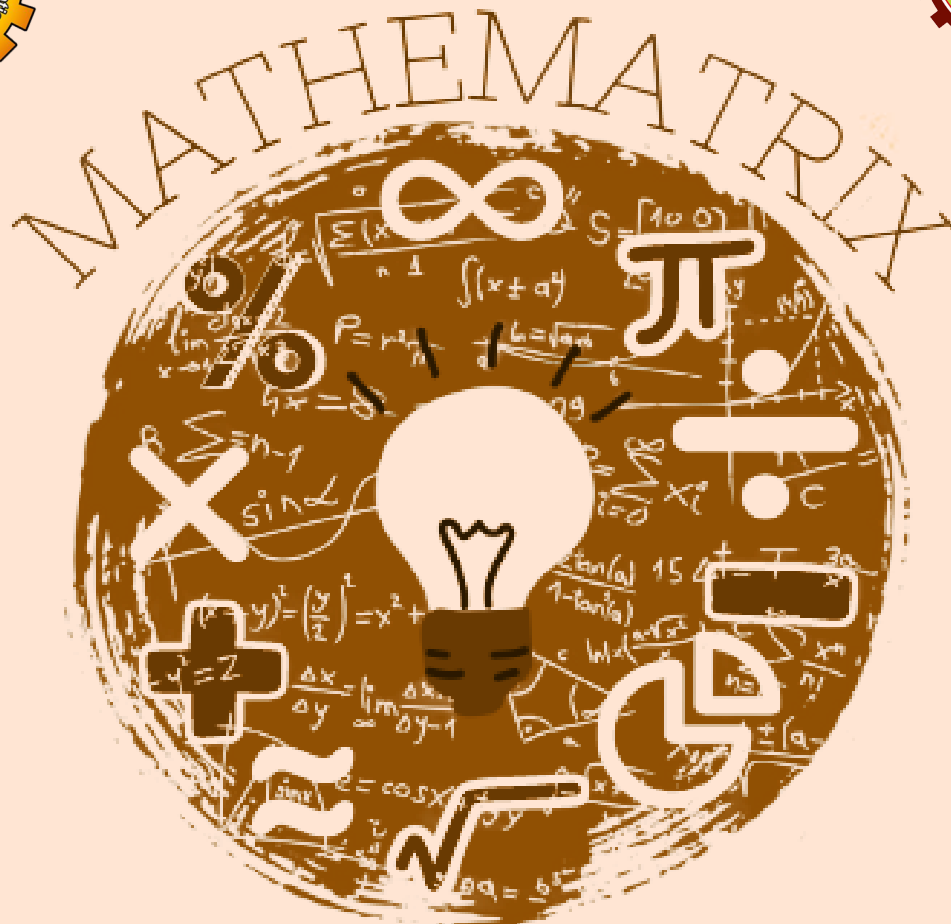


JSS Academy Of Technical Education, Noida

Department Of Mathematics



Volume 2 : Issue 1



ABOUT THE INSTITUTE



Vision

- ***JSS Academy of Technical Education Noida aims to become an Institution of excellence in imparting quality Outcome Based Education that empowers the young generation with Knowledge, Skills, Research, Aptitude and Ethical values to solve Contemporary Challenging Problems.***

Mission

- ***Develop a platform for achieving a globally acceptable level of intellectual acumen and technological competence.***
- ***Create an inspiring ambience that raises the motivation level for conducting quality research.***
- ***Provide an environment for acquiring ethical values and a positive attitude.***

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ABOUT THE DEPARTMENT

“Mathematics is not about numbers, equations, computations, or algorithms: it is about understanding.”

-William Paul Thurston

Vision

- To strive for excellence in mathematics and promote interdisciplinary collaborative research leading to futuristic solutions.

Mission

- To empower students with mathematical knowledge that will enhance the problem-solving capability.
- To encourage faculty to engage in interdisciplinary research activity and scholarly writing.
- To give an exposure of real-world problems and methods of solving, using tools and techniques of mathematics.



The Department of Mathematics at JSS Academy Of Technical Education, Noida [JSSATEN] was initiated in 1998. Having situated at the ground floor in the Academic Block-V of the academy the department currently has 1 Professor, 1 Associate Professor and 5 Assistant Professors with each faculty having doctoral degree [Ph.D.] in different specializations of Mathematics. Faculty teaches Mathematics via regular and elective subjects for both undergraduate and postgraduate courses like B.Tech. and M.Tech. As a result of team effort, the department has been consistently producing excellent results. Various faculty members have got 6 text-books published to benefit the student community and teaching fraternity and have got more than 100 research papers published in journals/ conferences of international/ national repute. Over the years the department has contributed tremendously in imparting a strong Mathematical foundation to students, a basic necessity for producing the best engineers who are now excelling in their professions not only in India but across the globe.

Principal's Desk

“ 'Obvious' is the most dangerous word in mathematics.”

— Eric Temple Bell

With the divine blessings of His Holiness Jagadguru Dr. Sri Sri Shivarathri Deshikendra Mahaswamiji, JSS Academy of Technical Education, Noida (JSSATEN) is recognised as one of the leading technical institutions. JSSATEN vision is, To impart quality outcome based education (OBE) that empowers the young generation with the knowledge, skills, research aptitude and ethical values to solve the real world challenging problems. I am delighted to know that the Department of Mathematics is bringing out yet another issue of their famous newsletter named “MATHEMATRIX” during the current semester. The collection of information summed up in this issue has all the necessary steps to educate the aspiring students with the world of mathematics and its vast dimensions & its applications. I hope that the students and the readers will benefit from such an endeavor by the Department of Mathematics at JSSATEN.



I congratulate Dr. Bhupender Parashar, HoD (Mathematics), Dr. Ranu Pandey, Editor, and the entire team of the department of mathematics and all the students for bringing out the next digital newsletter edition and wish them a great success.

**Dr. Amarjeet Singh
B.Tech, M.Tech, Ph.D.
Principal
JSSATE, Noida**

**“ Mathematics knows no races or geographic boundaries; for mathematics,
The cultural world is one country. ”
— David Hilbert**

Mathematicians are making lasting contributions to society by solving realistic problems in diverse fields such as medicine, agriculture, management, economics, government organizations, computer sciences, engineering, technology and social sciences.



During this global crisis due to the COVID-19 pandemic people suffered tremendous disruptions, pains, and fears. The physical suffering, the isolation, and the compelling demands to care for others in new ways deepened. The challenges faced by faculty and students in teaching & learning were met with the integration of technology to give students a classroom feeling. Faculty members of the department have extended support to students by being available almost 24×7 to clarify their doubts even on one to one basis.

The Faculty members in the Department of Mathematics are actively engaged in research in all major areas of Pure and Applied Mathematics. They regularly participate/deliver/invite talks in National and International Conferences / Symposia / Workshops . In order to improve the quality of Education and Research, the Department of Mathematics organizes Seminars, Conferences, Workshops and Symposia periodically.

Mathematrix aims to highlight useful mathematical tools, techniques, tips & tricks in learning Engineering/Management related Mathematics and hope that it will greatly benefit all its readers.

Dr. Bhupender Parashar
Associate Professor & HoD,
Department of Mathematics
JSSATEN Alumni Coordinator

First Year Coordinator's Desk

“ Mathematics compares the most diverse phenomena and discovers the secret analogies that unite them.”

~Joseph Fourier

I am profoundly happy to write for this second issue of the newsletter initiated by the Department of Mathematics. My heartfelt thanks and congratulations to all my faculty members from the department and all students for bringing this issue to the upfront. As First Year Coordinator, I always have felt proud when I see my colleagues and my juniors working hard and moving towards the path of upliftment and success. I offer all my support to the faculty members for this endeavor also.



I am quite sure that the current issue will help the department of Mathematics in achieving the objective to bring forth few of the advancements in the field of Mathematics. Also I am sure that this effort will help faculty and students to pool their ideas and with each new issue of the newsletter, they will move towards perfection. I am also hopeful that this newsletter will provide sufficient content to our enthusiastic learners i.e., our students and it eventually would help them create and sustain their interest in the area of Mathematics.

As the B.Tech. First Year coordinator, my task is to coordinate among various departments faculty teaching First Year as well as guiding and mentoring students with the help of class coordinators, I also keep my pace high to match with the pace of my budding students. I aspire that my team members also would do the same while bringing every issue of this newsletter and fulfill the demand of the hour by providing relevant material to quench the curiosity thirst of our readers.

It is my pleasure to be part of the newsletter for the Department of Mathematics. I congratulate the entire editorial team of the Mathematics newsletter headed by the Head of the Department, Dr. Bhupender Parashar and Dr. Ranu Pandey for their excellent initiative. My good wishes are with the entire team of '**Mathematrix**'.

Dr. Z.K.Ansari
First Year Coordinator &
Professor
Department of Mathematics

Editor's Desk

"Go down deep enough into anything and you will find mathematics."

— Dean Schlicter

It's a matter of immense pleasure to launch the second issue of '**Mathematrix**', the Newsletter from The Department of Mathematics after the huge success of the first.

Mathematrix has come up as a result of the enormous efforts, hard work, dedication

and patience that's put in by our editorial team under the able

guidance of our respected HoD, Dr. Bhupender Parashar. Its

purpose lies in encouraging creative thoughts, power of

expressions, and helping students to understand the

importance and value of mathematics so that they

comprehend, learn and grow in every aspect relating to the

subject. In this release, we offer a wide range of articles

including the ones from the experts, a few offerings from our

current engineering undergrads and special write-ups from

our distinguished alumnus. This edition witnesses ample

engrossing Puzzles, BrainTeasers, a great deal of Current

Affairs, scores of opportunities in the field. It includes a

glimpse of the activities which turned out in this session. I

extend my heartfelt gratitude to our Principal Dr. Amarjeet

Singh, Vice-Principal Dr. T. G. Mamatha for rendering their

support and encouragement to the Newsletter. I offer special words of thanks to our

First Year Coordinator Prof. Z.K. Ansari for always being the inspirational source. This

task would have been incomplete without the support of our HoD, Dr. Bhupender

Parashar, fellow faculties of the Department and the entire editorial team who played

key roles in conceptualizing, innovating and designing the latest edition. I appreciate

their outstanding efforts in releasing the issue in time and my special mention to the

young student's brigade Anubhavi, Palak and Pradhumn for outstanding ideas and

excellent cover page for the present issue . Once again, my sincere thanks to each and

everyone who has been associated with it head on or circumlocutorily for putting all

his/her efforts into its successful release. I firmly believe that second issue of

Mathematrix would prove to be a milestone for all our young engineers. Looking

forward for getting the valuable feedback and suggestions which eventually would help

us to improve and come up with finer content and tweak design for the forthcoming

issues as we aspire to bring perfection and be roads ahead with the progress of time.



Wish you all a joyful learning and Good Luck!!!

Dr. Ranu Pandey (Editor)
Assistant Professor
Department Of Mathematics

ROLE OF MATHEMATICS

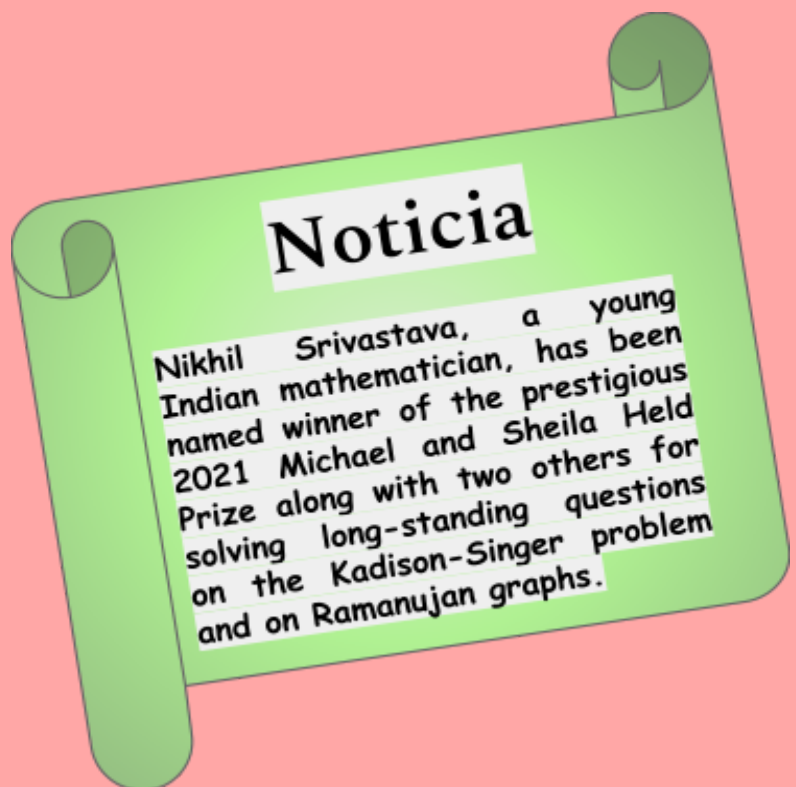
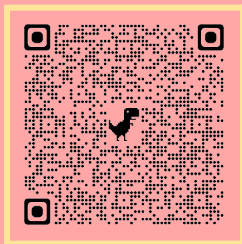


"Arithmetic is numbers you squeeze from your head to your hand to your pencil to your paper till you get the answer. " — Carl Sandburg

Mathematics is one of the oldest academic subjects and is one of the most mature and well-developed disciplines of basic sciences. The role of mathematics in engineering is crucial. The most important branches of Mathematics applicable to Engineering are Linear algebra, Geometry of two and three dimensions, Trigonometry, Calculus (real, vector and complex), and Differential equations. Civil Engineering depends greatly on Geometry, calculus both real and complex. Computer Science (Information Technology) and Engineering is largely dependent on Algebraic structures, combinatorics logic and number theory all of which are covered under Discrete Structures.

Mechanical and Electrical Engineering heavily utilize calculus, linear algebra, differential equations and Numerical analysis. Electronic and Communication, Instrumentation and control engineering employs integral transforms and techniques (Transform methods). Advances in mathematical control theory have led to improved manufacturing process control. Applications are seen in chemical process manufacturing and metal processing. The rapid increase of computational capabilities and an increasingly quantitative approach to problem solving is transforming the manufacturing world. Parametricism is becoming key to modern architecture and designing. It completely vests on and is a vast application of Mathematics nowadays.

**Scan to
Explore**



News Of The Department

"If I were again beginning my studies, I would follow the advice of Plato and start with mathematics."— Galileo Galilei

Seminars, Workshops and FDPs Attended/Organized: 2022

- **Dr. Bhupender Parashar and Dr. Shalini Singh** attended webinar entitled "Simple ways to improve students; classroom performance and experience" jointly organized by the Center for Advanced Studies & Research in Automotive Engineering, DTU; IMechE DTU Chapter; NIT Srinagar; JSS Noida; Vaagdevi College of Engineering; JIMS Greater Noida and other renowned Institutions on 11.04.2022.
- **Dr. Bhupender Parashar** attended a webinar entitled "Learn how to access the high-impact factor content on your fingertips" by Taylor and Francis Group on 20.04.22.
- **Dr. Bhupender Parashar** attended a webinar entitled "Get up to speed with ScienceDirect Reference Books" by Researcher Academy On Campus at Dr. A.P.J. Abdul Kalam Technical University Consortium on 28.04.22.
- **Dr. Bhupender Parashar** attended one week FDP on "Cryptography for Information Security" conducted by the Computer Science and Engineering Department at JSS Academy of Technical Education, Noida, U.P. from 09.05.2022 to 13.05.2022.
- **Dr. Bhupender Parashar** attended two-week FDP on "Frontiers of Mathematics" organized by the Department of Mathematics, SRMIST, Ramapuram, Chennai, India in association with "1 Decembrie 1918 University" of Alba Iulia, Romania from 19.05.2022 to 2.06.2022.
- **Dr. Shalini Singh** attended one week FDP on "MATLAB for Science and Engineering Teachers" conducted by NITTTR, Chandigarh at JSSATE Noida from 23.05.2022 to 27.05.2022.
- **Dr. Anushri Verma, Dr. Vinita Khemchandani, Dr. Nikunj Agarwal and Dr. Ranu Pandey** attended one week FDP on "Cyber Crime and Forensic Tools" conducted by Information Management and Emerging Engineering Department, NITTTR at JSS Academy of Technical Education, Noida from 23.05.2022 to 27.05.2022.
- **Dr. Anushri Verma** attended webinar on "Nano and Bio-interfaces with Improved Functionality" organized by Department of Chemistry at JSS Academy of Technical Education, NOIDA on 11.06.2022.
- **Dr. Anushri Verma** attended two-week FDP on "Nanoscience and Nanotechnology" conducted by Applied Science Department at NITTTR, Chandigarh from 13.06.2022 to 24.06.2022.

- **Dr. Bhupender Parashar** attended one week FDP on “Empowering People & Ethics” conducted by Department of Management, Yuvakshetra Institute of Management Studies, Mundur, Pallakad, Kerala from 13.06.2022 to 20.06.2022.
- **Dr. Bhupender Parashar** attended webinar on “Applications of Probability & Statistics in Defense” organized by the Department of Mathematics, RM Institute of Science and Technology (SRMIST), Ramapuram, Chennai - 600089 as part of National Statistics Day on 29.06.2022.

Achievements, Responsibilities other than academics

- **Dr. Z.K. Ansari** discharged responsibilities as Center Superintendent in conduction of odd semester Dr. APJ Abdul Kalam Technical University examination which was held in March-April 2022.
- **Dr. Z.K. Ansari** worked as Chairperson-Discipline Committee in the JSSATEN Techno-Cultural Fest “Zealicon 2022”.
- **Dr. Z.K. Ansari** coordinated One Day Workshop On C++ under Student Development Program on 28th May 2022.
- **Dr. Bhupender Parashar** discharged responsibilities as Assistant Center Superintendent in conduction of odd semester Dr. APJ Abdul Kalam Technical University examination which was held in March-April 2022, Center Superintendent in conduction of Ph.D. Entrance examination of Dr. APJ AKTU on 06.04.2022.
- **Dr. Bhupender Parashar** worked as Chairperson-Registration Committee in the JSSATEN Techno-Cultural Fest “Zealicon 2022”.
- **Dr. Bhupender Parashar** as an Alumni coordinator organized Alumni Meet-2022 cum Governing Body Meeting-JSSATEN Alumni Association on 28th May 2022.
- **Dr. Anushri Verma and Dr. Nikunj Agarwal** worked as the exam cell members during the odd semester Dr. APJ Abdul Kalam Technical University examination which was held in March-April 2022.
- **Dr. Shalini Singh** worked as a first-year time table coordinator for the odd semester 2021-22.
- **Dr. Vinita Khemchandani** won the Best Presentation Paper award in National Conference on Mathematical Sciences for Applied and Agricultural Research, CCS Haryana, Hisar on February 22, 2022.

- **Dr. Vinita Khemchandani** delivered a Guest lecture on “Real Life Applications of Ordinary Differential Equations” for the students of Amity Institute of Applied Sciences, on 21st May 2022.
- **Dr. Nikunj Agarwal** worked as one of the members in the discipline committee in JSSATEN Techno-Cultural Fest “Zealicon 2022”.
- **Dr. Ranu Pandey** was able to successfully release the first volume of the Department of Mathematics newsletter “**MATHEMATRIX**” as an editor on 26th April 2022.
- **Dr. Ranu Pandey** also worked as one of the members in the inaugural committee of JSSATEN Techno-Cultural Fest “Zealicon 2022”.
- **Dr. Ranu Pandey** discharged responsibilities as a facilitator in organizing the Alumni Meet-2022 cum Governing Body Meeting-JSSATEN Alumni Association on 28th May 2022.
- **Dr. Ranu Pandey** as one of the faculty coordinators organized a two days’ workshop on “Effective Teaching and Learning” in collaboration with IIT, Guwahati and coordinated by the Information Technology department from 18th-20th June 2022.

Research Publications 2022



- **Dr. Z.K. Ansari** published a paper entitled “Fixed Point Result on Generalized Cone b-Metric Spaces” Pure and Applied Mathematics, Vol. 11(2), 28-32, <http://www.sciencepublishinggroup.com/j/pamj>, doi:10.11648/j.pamj.20221102.11, ISSN: 2326-9790 (Print); ISSN: 2326-9812 (Online).
- **Ranu Pandey, Bhupender Parashar and Vinita Khemchandani**, “Reliability Models: A Comparative Study of a 2-Unit Hot Standby Systems with and without Inspection Policy” in National Conference on “Mathematical Sciences for Applied and Agricultural Research” organized by CCS Haryana Agricultural University, Hisar, Haryana on 22 nd February 2022.
- **Vinita Khemchandani**, Ranu Pandey and Bhupender Parashar “Computational Elucidation of an Unsteady Boundary Lamina Flow with the Heat Transfer Effects Adjoining to an Extending Sheet via a Permeable Channel” organized by CCS Haryana Agricultural University, Hisar, Haryana on 22 nd February 2022.
- **Bhupender Parashar**, “Imperfect Maintenance Modeling for Sequential Corrective & Preventive Maintenance” is published (May 2022) in AIP Proceedings of National

Conference on Applied Sciences and Mathematics (NCASM-20), held on 24th - 25th September 2020 at Chitkara University, Punjab (India).

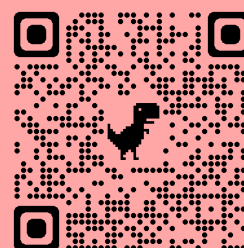
- **Bhupender Parashar**, "Principal Component Analysis for the Assessment of Genetic Diversity" is published (May 2022) in AIP Proceedings of National Conference on Applied Sciences and Mathematics (NCASM-20), held on 24th - 25th September 2020 at Chitkara University, Punjab (India).
- **Shalini Singh**, "Some curvature properties on a generalized contact metric structure manifold", International conference on contemporary Research on Mathematics and Computer Science (ICCRMCS-2022), Shri Ram Murti Smarak College of Engineering and Technology, Bareilly on April 29-30, 2022.

InFiNiTy ∞

The earliest known conception of mathematical infinity appears in the Yajur Veda, an ancient Indian script, which at one point states, "If you remove a part from infinity or add a part to infinity, still what remains is infinity." Infinity was a popular topic of philosophical study among the Jain mathematicians c. 400 BC. They distinguished between five types of infinity: infinite in one and two directions, infinite in area, infinite everywhere, and infinite perpetually.

Mathematics is the
science of the
infinite.

Scan to
Explore



MATHEMATRIX Volume-1 Launch Episode

To me, mathematics, computer science, and the arts are insanely related. They're all creative expressions. — Sebastian Thrun

With the Advent of **Zealicon 22** (The Annual Techno-Cultural Fest of JSSATEN) on April 26 2022. The day etched itself as a Red-Letter in the History of the Department of

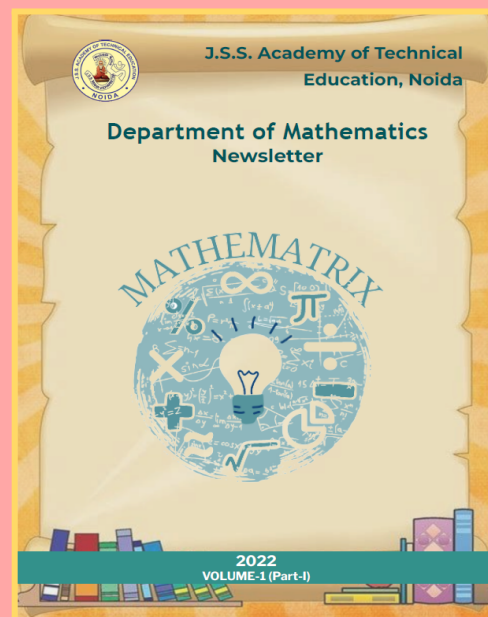


Mathematics, JSSATEN which launched its first Edition of its Newsletter

Mathematrix in the presence of the Chief Guest Mr. Abhishek Singh; IAS, Principal(I/c) Dr. T.G. Mamatha, CAO Cmde. B.K. Gupta and Dean (SW) Dr. Prashant

Chauhan. The HoD, Dr. Bhupender Parashar, the editor, Dr. Ranu Pandey and the core team worked collectively to make it a success.

During the Inaugural Ceremony of Zealicon 22, along with the entire Editorial Team, the Guests obliged the Department by accepting the proposal to Launch Mathematrix-Volume1 and congratulated Dr. Bhupender Parashar for achieving such a milestone with flying colors. Dr. Mamatha T.G. applauded the great work by the newsletter team in completing the task timely. Dr. Bhupender Parashar congratulated the entire Editorial Team who played a key role in releasing the newsletter in time. Everyone was elated with the first edition, as it took a lot of effort and also it was the benchmark that was embarked for the future editions of Mathematrix. The dignitaries also extended their Best wishes for the Editorial Team and prayed for their bright and successful future.



Workshop On C++ Under Student Development Program

A one day workshop on C++ was conducted under the Student Development Program on May 28th 2022, Saturday from 9:00 am to 12:15 PM at Multipurpose Hall for the First Year B.Tech students in association with Coding Blocks, Sector-02, Noida by the Department of Mathematics.

First Year Coordinator, Dr. Z.K. Ansari, who

coordinated the workshop, formally welcomed Mr. Ajay; the Mentor and the coordinator of the Coding Blocks with Basil Sapling. The students were briefed about the importance of the workshop and were advised to make full use of the given opportunity.

Ms. Mosina Ashraf, the Mentor of Coding Blocks, briefed about the importance of Coding and quizzed the students regarding different languages of the computer software. Our students performed extremely well and left an impressive remark upon The Mentors. She also demonstrated some coding aspects live in C++ and briefed the students about the placement opportunities in FAANG, Facebook (now Meta), Amazon, Apple, Netflix, and Google (now Alphabet).



ALUMNI MEET-2022 CUM GOVERNING BODY MEETING-JSSATEN ALUMNI ASSOCIATION



JSS Academy Of Technical Education, Noida being one of the premier institutes under the umbrella of JSS Mahavidyapeetha. Formation of the alumni association has been an additional accomplishment for the institute. The suggestion of Dr. H. R.

Mahadevaswamy, Joint Director, Technical Education Division of JSS Mahavidyapeetha, Mysuru was brought into reality under the leadership of Dr. T. G. Mamatha, In-charge Principal and the alumni coordinator Dr. Bhupender Parashar. An Alumni meet-2022 cum Governing Body Meeting of JSSATEN Alumni Association was held on Saturday, 28th May 2022 at 10:00 AM in conference room AB3-113. The agenda of the meet was signing of the documents associated with the process of registration of JSS

Academy of Technical Education, Noida Alumni Association.

The event was attended by Dean (A) Dr. R.S.

Jagadish, Dean (R&D) Dr. K.S. Sujatha, Dean (SW) Dr. Prashant Chauhan, Registrar, Dr. S.S. Shirur,, TPO, Dr. Yogendra Singh, Dr Z. K. Ansari, First Year



Coordinator, HoDs, all the executive body members of the alumni association and the department faculty alumni coordinators. The alumni were welcomed with Kumkum tilak and floral bouquet by the team of student volunteers. Dr. Bhupender Parashar projected the transformation of the institute from its formation in 1998 into the present-day institute with a huge campus equipped with five academic blocks, hostels, multi-purpose hall, cafeteria, academic recognition with NBA accreditation to its five undergraduate courses in engineering, NIRF ranking, recognition/ ranking from academic surveys etc. He shared the prominent alumni achievements from each department. He also introduced all the governing body members of the alumni association to the gathering.



The alumni meet was hosted by Dr. Ranu Pandey, Asst. Professor Mathematics department.

The lifeline of today's time, Google search engine is a term which is derived from word "googol" which is a mathematical term for the number 1 followed by 100 zeros which reflect infinite amount of search on the internet.

Words of Alumnus

Computers are composed of nothing more than logic gates stretched out to the horizon in a vast numerical irrigation system.

-Augarten

I am **Kartik Goel**, currently pursuing Post Graduate Diploma in Industrial Engineering from **NITIE, Mumbai**. I got graduated in **Mechanical Engineering** from **JSSATE, Noida** in **2020**. The insights I have about the use case of mathematics in my higher studies are as follows:

Mathematics taught me to hold onto things and is that analytical language that makes sense to the intangible prospects of almost everything. From finding the probability of tossing a coin to finding the nuances of business uncertainty and its implications on an organization's net profit, I did it all.



Uncertainty is the only certainty in this universe and that revelation was quite uncanny, which made me dive deeper into the subject and grasp the essence of the art behind it. The deeper I went I found that for every structure and pattern Mathematics is the core truth encircling the understanding around it.

Being in NITIE Mumbai, I was exposed to real-world business problems, like framing patterns, demand forecasting, understanding the distributions followed by a plethora of data variables, and assimilating a holistic understanding. Structuring something random is the recapitulation of my work all these years.

Touching upon the major learnings I had, Probability distributions help in assessing different arrival patterns, service patterns & behavior of customers. Developing mathematical models to identify the constraints and formulating an objective function to categorize what product to make and describing the magnitude it can have on overall profits, which amplifies to creating demand around it. To store a product at manufacturer level or retail level, whether to keep safety stocks or follow JIT, creating matrices to quantify the gazillion data to strike a balance and find a tradeoff between responsive and efficient supply chain, all these decisions as a manager I must take are based on the mathematics that's build behind it. It's the redemptive way of creating a problem and solving it.

I cordially thank the **Department of Mathematics** for introducing me to different tools which are highly applicable in the practical world. I am glad to be a part of the alumni corner in this newsletter.

GUEST COLUMN

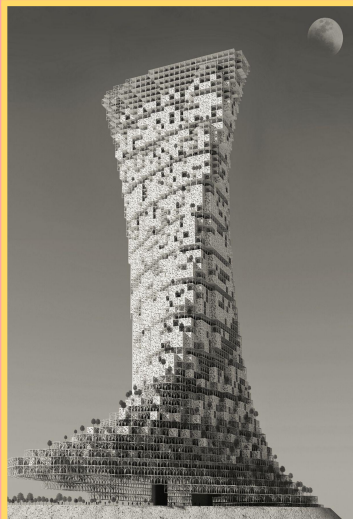
To Thales the primary question was not what do we know, but how do we know it.
-Aristotle

Being a Mathematician by passion and an Architect by profession, Mathematics is a part and parcel of each day of my life so I, **Dewesh Agrawal, Architectural Designer at Gerber Architekten International, Berlin, Germany** feel highly honored to have got an opportunity to pen down my views on Mathematics for this issue of Mathematrix.

I am an **IIT Roorkee 2016 Graduate in Bachelor of Architecture (B.Arch)** and a **former Architect of Studio Symbiosis, Noida India.**

I have been working in-depth as an **architect**, as a **computational designer** and a **creative coder** keenly interested in complex geometry. Currently I'm exploring the vast spheres of Machine Learning and Data Science.

Mathematics being the unit cell of Engineering, we Engineers need to imbibe it all. For Computational Architecture, '**Parametricism**' is a foundation stone which I've been doing using **Rhino Software with Grasshopper Plugin.** Parametric design is a



newfound approach to architectural design based on the mode of parameters. '**Parametric**' originates from mathematics and refers to the use of parameters and variables. The term was invented by Luigi Moretti to describe architectural design based on mathematical algorithms. Parameter is defined as a variable for which the range of possible values identifies a collection of distinct cases in a problem. It entails mathematical decomposition of a design problem wherein the design is informed and shaped by specific numerical inputs and their relationships. **3D Geometry** is created and manipulated using algorithms which utilize mathematical concepts like vectors, matrices and calculus.

Parametricism includes scores of opportunities as it is an amalgamation of Mathematics and Technology with Architecture which makes it quite futuristic.

Hope my words enhance your interests and open the vast dimension of unexplored booming world of Mathematics to you which you can alter with just a few keystrokes.

I **Thank** the Department Of Mathematics, JSSATEN for providing me with this opportunity and to connect with you from a distant land.

Wish You All Good Luck.

Scan to explore
& connect.



Student's Corner

Where The Math Is?

*Math is in my heart,
In my brain, in my vein.
We can see it in a triangle ,
In a circle , in a plain...
In a vehicle , in a train,
In an empty vessel or in a crane.
Math is everywhere
In my heart, in my brain.
Teacher taught us math,
Math taught us life,
A life full of number ,
And numbers with no end,
Pi has a beginning but it never goes to end.
Mean is the average ,
Everest is the highest,
Highest mean 1st
Aryabhatta was the only one who gave very first.
'i' is imaginary.
This world full of lies ,
People asked , where do we use math?
I replied...
Everywhere , we see from our naked eyes.*

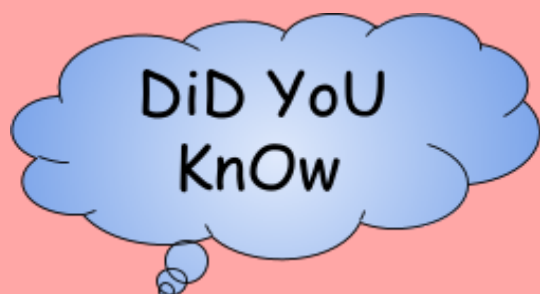
~ Pradhumn (BTech ME 4th Year)

St★r Performers

1st and 2nd Year Students who Scored $\geq 90\%$ in External AKTU Odd Sem 2021-22

Sr. No.	Roll No	Branch	Name	Ext Marks (100)
1	2100910310155	ECE	TANYA SINGH	99
2	2100910100161	CSE	SHUBHAM RAI	99
3	2100910100020	CSE	AKANKSHI SAXENA	98
4	2100910100150	CSE	SARVESH CHANDRA MISHRA	98
5	2100910100181	CSE	VAISHNAVI VERMA	98
6	2100910100193	CSE	VRITI CHAWLA	98
7	2100910310081	ECE	LEKHANSH SACHAN	98
8	2100910100029	CSE	AMAN VERMA	97
9	2100910130042	IT	DHRUV KARNWAL	97
10	2100910130069	IT	NITIN KUMAR	97
11	2100911540042	CSE(DS)	YASH	97
12	2100910100138	CSE	RITIK CHAUHAN	97
13	2100910100076	CSE	HARSH MISHRA	96
14	2100910100136	CSE	RIDAM AGRAWAL	96
15	2100911540058	CSE(DS)	VIKRAM SINGH	96
16	2100910100084	CSE	ISHA PARIHAR	95
17	2100911530030	CSE(AI&ML)	MITHILESH KUMAR VERMA	95
18	2100910310166	ECE	VAISHNO CHAUHAN	95
19	2100910100058	CSE	BHAVYA MITTAL	94

20	2100910100073	CSE	GURMAN SINGH SAMBHI	94
21	2100910100032	CSE	ANKITA KHOKHAR	94
22	2100910100156	CSE	SHRANGIKA GUPTA	93
23	2100910310138	ECE	SHIVENDRA PRATAP SINGH	93
24	2000910310110	ECE	PRAKHAR JAIN	93
25	2100910100173	CSE	SWATI SINGH	92
26	2100910210005	EEE	ADITI SINGH	92
27	2100910100019	CSE	ADITYA YADAV	92
28	2000910310092	ECE	LIPIKA GARG	92
29	2100910100185	CSE	VARUN GUPTA	91
30	2100910100157	CSE	SHRAYASH SHUKLA	91
31	2100910100008	CSE	ABHISHEK KUSHWAHA	91
32	2100910100160	CSE	SHRIKANT	91
33	2100910100075	CSE	HARSH MADAN	90
34	2100910310135	ECE	SHIVANSH PATHAK	90
35	2100910310014	ECE	AISHWARYA SRIVASTAVA	90
36	2100910100040	CSE	ANUSHREE MAURYA	90
37	2100910210042	EEE	VARTIKA CHAUHAN	90



There exists 113 Global Awards in Mathematics so far.



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Fun With Mathematics

RIDDLE WITH US!!!



Using only addition, add eight 8s to get the number 1,000.

I add six to eleven, and get five. Why is this correct?

If a hen and a half lay an egg and a half in a day and a half, how many eggs will half a dozen hens lay in half a dozen days?

What's the maximum number of times you can subtract five from 25?

How many sides does a circle have?

How can you take 2 from 5 and leave 4?

- Answers**
- $888 + 88 + 8 + 8 + 8 = 1,000$.
 - When it is 11 a.m., adding 6 hours makes it 5 p.m.
 - 2 dozen
 - Only once as when you subtract 5 the first time, 25 becomes 20, then 15, and so on.
 - 2 - The Inside And The Outside
 - Remove 2 letters F & E from word FIVE & you have IV.

Student Volunteers



“Being associated with Mathematrix as an integral part has been a wonderful experience. It took me back to the roots “Numbers”. I wish Mathematrix great success and hope it continues to inspire its readers more and more with its forthcoming issues.”

~ Anubhavi Agrawal (BTech CSE 4th Year)
Email: anubhavi.callme@gmail.com

“The whole process of coordinating with our convenors has been a great lesson in responsibility, accountability and the corresponding authority that comes with it to get the job done effectively and efficiently.”

~ Pradhumn (BTech ME 4th Year)
Email: pradhumncool3x@gmail.com



“Mathematrix has connected us once again with Mathematics. We all hope that the legacy of Mathematrix is carried on further with the same pride and efforts, with each edition being better than the last”

~ Palak Goyal (BTech CSE 4th Year)
Email: palakgoyal686@gmail.com